DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015160 Address: 333 Burma Road **Date Inspected:** 24-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Chen Xi / Mr.Li zhi jiang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) buttering welding of Traveler Rail 21TR1-036 and 21TR3-001. Welders are identified as 215397 and 216575 respectively. ZPMC Quality Control (QC) is identified as Mr. Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The buttering was been performed as per the Critical Welding Report (CWR) No: B-CWR1568.

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-023. Heat straightening was being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-363 Rev.No:1. ZPMC Quality Control (QC) is identified as Mr. Ai Wei.

BAY-2

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-009. Heat straightening was

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being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-370. ZPMC Quality Control (QC) is identified as Mr. Cai Xiao Fang.

FCAW of weld joint FB3189-001-036/037. Welder is identified as 067947. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3189-001-026/027. Welder is identified as 067275. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

BAY-3

FCAW of weld joint FB3123-001-012. Welder is identified as 217805. ZPMC Quality Control (QC) is identified as Mr. Wang Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3134-001-051. Welder is identified as 214945. ZPMC Quality Control (QC) is identified as Mr. Wang Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3125-001-011/012. Welder is identified as 052696. ZPMC Quality Control (QC) is identified as Mr. Wang Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F.

During random in process Visual Inspection this QA Inspector observed 2 (Two) and 4 (four) numbers of Crack tacks on Floor beam weld joint Numbers identified as: FB3123-001-017 and 026 respectively. The "Y" locations are for these defects measured to be approximately 1740, 2460 and 1600,1950,2560,3010 mm respectively from the nearest end of the weld joint. This QA informed to ZPMC Quality Control (QC) identified as Mr. Li zhi jiang and American Bridge/Fluor (AB/F) QA Inspector identified as Mr. Wang wen bin of the above issue, As per ZPMC QC and AB/F QA the Cracked Tack welds shall be removed by grinding and perform Magnetic Particle Testing (MT) for verifying no more defects prior to start the final welding. Refer attached photos for additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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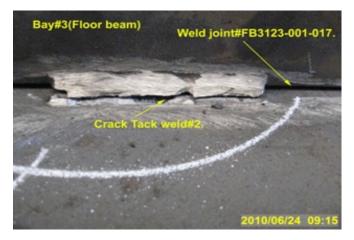


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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer